

ABSTRACT

A block coding algorithm uses an original block group having $n+1$ original blocks of m -bit message, which a first
5 original block of m -bit message is encoded as a reference block of n -bit codeword and n original blocks of m -bit message placed after the first original block of m -bit message are encoded as n weighted blocks of n -bit codeword, based on a bit sequence of the reference block. A block
10 decoding algorithm decodes n weighted blocks to generate corresponding original blocks of m -bit message and reconstructs the first original block of m -bit message from a sequence of reference bits, wherein each reference bit implies whether each of n weighted blocks is an A type
15 weighted block or a B type weighted block.